

Title (en)

ANTIBODY LOCKER FOR THE INACTIVATION OF PROTEIN DRUG

Title (de)

ANTIKÖRPERSPERRER ZUR INAKTIVIERUNG VON PROTEINARZNEIMITTEL

Title (fr)

DISPOSITIF DE VERROUILLAGE D'ANTICORPS UTILISABLE EN VUE DE L'INACTIVATION D'UN MÉDICAMENT PROTÉIQUE

Publication

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Application

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Priority

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- US 2014039821 W 20140528

Abstract (en)

[origin: WO2014193973A2] Disclosed herein is a hinge antibody capable of being selectively activated in a target cell or tissue to treat a condition therein. The hinge antibody includes a functional antibody, two inhibitory domains and four cleavable linkers. The functional antibody is capable of treating the condition in an activated state, and has two light chains and two heavy chains. Each inhibitory domain includes a hinge domain of an immunoglobulin and consists of two peptide arms. Each cleavable linker includes a peptide substrate cleavable by an enzyme specifically or highly expressed in the target cell or tissue, and connects one of the peptide arms of the inhibitory domains to the N-terminal of one of the light chains and heavy chains of the functional antibody. Also disclosed herein are methods for preparing and using this hinge antibody.

IPC 8 full level

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Citation (search report)

- [I] WO 2009025846 A2 20090226 - UNIV CALIFORNIA [US], et al
- [I] WO 2010081173 A2 20100715 - CYTOMX THERAPEUTICS LLC [US], et al
- [E] WO 2014144689 A1 20140918 - BAYER HEALTHCARE LLC [US]
- [A] DONALDSON JOSHUA M ET AL: "Design and development of masked therapeutic antibodies to limit off-target effects: application to anti-EGFR antibodies", CANCER BIOLOGY & THERAPY, LANDES BIOSCIENCE, US, vol. 8, no. 22, 1 November 2009 (2009-11-01), pages 2147 - 2152, XP009135774, ISSN: 1538-4047
- [A] ORAN ERSTER ET AL: "Site-specific targeting of antibody activity mediated by disease-associated proteases", JOURNAL OF CONTROLLED RELEASE, ELSEVIER, AMSTERDAM, NL, vol. 161, no. 3, 17 May 2012 (2012-05-17), pages 804 - 812, XP028409044, ISSN: 0168-3659, [retrieved on 20120523], DOI: 10.1016/J.JCONREL.2012.05.035

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